



Australian Government

Assessment Requirements for NWPTRT045

Assess and improve desalination processes

Release: 1

Assessment Requirements for NWPTRT045 Assess and improve desalination processes

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed in at least one of the desalination processes listed in the Range of conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- preparing and applying chemical dosing and cleaning
- applying calculations to determine log removal values, Langelier saturation index, silt density index, salt passage or permeate flux, as required
- evaluating process performance
- reviewing existing process performance with reference to historical data, differences in raw water quality and plant configuration
- identifying data deficiencies and collecting additional data through appropriate sampling and testing
- assessing fault reports and investigating current operational status of processes for water treatment
- investigating current and potential chemical addition practices
- planning trials to test the performance of the treatment optimisation options for desalination
- preparing recommendation reports

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- types and characteristics of chemical and microbial contaminants treated through desalination processes
- problems for desalination processes caused by chemical and biological contamination

- relevant legislation, standards and workplace policies and procedures relating directly to the control and operation of desalination processes
- principles of water reuse treatment processes
- log removal value concept for desalination
- saturation indices used for prediction of scaling formation
- silt and/or fouling indices used for prediction of solids or colloidal fouling
- properties and modes of action for desalination
- types and application of chemicals and chemical cleaning methods for desalination processes
-

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Some components of this unit require assessment in a workplace environment therefore the unit is not suitable for fully external or electronic based assessment.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>